

Abstract

The present invention provides a technique for reducing influences of the bias magnetic field developed by yokes used for concentrating the magnetic field on magnetoresistance elements, on MRAM operations. An MRAM according to the present invention is composed of a plurality of magnetoresistance elements having magnetic anisotropy in a first direction; a wiring extended in a second direction different from the first direction, through which a write current is flown for writing data into the magnetoresistance elements; and a yoke layer formed of ferromagnetic material, extended along the second direction, and covering at least a portion of a surface of the wiring. The plurality of magnetoresistance elements include a first magnetoresistance element, and a second magnetoresistance element of which the distance from an end of the yoke layer is further than that of the first magnetoresistance element. The first magnetoresistance element has a magnetic anisotropy stronger than that of the second magnetoresistance element.